

**ABSTRACT OF THE DISCLOSURE**

Disclosed is a method for the re-compression of process generated steam to create a higher pressure steam that is useful as a heating medium

5 in other parts of a carboxylic acid production process or, in general utilized in another process. The invention comprises the following basic steps: (a) recovering thermal energy from at least a portion of the high temperature process stream resulting from an aromatic carboxylic acid production process in a first heat transfer zone to produce a low pressure stream; (b)

10 subjecting the low pressure steam to a compression zone to generate an intermediate pressure steam; (c) utilizing the intermediate pressure steam as a heating medium, specifically within other parts of the carboxylic acid process or generally in another process thereby generating steam condensate; and (d) optionally, recycling all or part of the steam condensate

15 to the second heat transfer zone for low pressure steam generation.